

ABSTRACT

Disclosed is a signal processing method for an FM-CW radar that can accurately detect the relative distance, 5 relative velocity, etc. with respect to a target approaching or receding at a high relative velocity, wherein predicted values for peak frequencies currently detected in upsweep and downsweep sections are computed from the previously detected relative distance and 10 relative velocity, and it is determined whether any of the predicted values exceeds a detection frequency range and, if there is a peak frequency that exceeds the detection frequency range, the frequency is folded and the folded frequency is taken as one of the predicted 15 values, the method then proceeding to search the currently detected peak frequencies to determine whether there are upsweep and downsweep peak frequencies approximately equal to the predicted values and, if such upsweep and downsweep peak frequency are found, the peak 20 frequency approximately equal to the folded predicted value is folded and the folded peak frequency is used.